

What is claimed is:

5 1. A platinum alloy comprising:

55 to 63 wt.% of platinum,
2 to 10 wt.% of cobalt, and
27 to 43 wt.% of copper.

10 2. A platinum alloy comprising:

70 to 79.5 wt.% of platinum,
2 to 10 wt.% of cobalt, and
10.5 to 28 wt.% of copper.

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3. The platinum alloy of claim 1, wherein said alloy comprises 57.5 to 59.9 wt.% of platinum.

20 4. The platinum alloy of claim 1, wherein said alloy comprises 58.5 to 59.0 wt.% of platinum.

5. The platinum alloy of claim 2, wherein said alloy comprises 72 to 78 wt.% of platinum.

25 6. The platinum alloy of claim 2, wherein said alloy comprises 74 to 76 wt.% of platinum.

7. The platinum alloy of any one of claims 1 to 6, wherein said alloy comprises 2.0 to 8.0 wt.% of cobalt.

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8. The platinum alloy of any one of claims 1 to 7, wherein said alloy comprises 3.5 to 5.5 wt.% of cobalt.

9. The platinum alloy of any one of claims 1 to 8, wherein said alloy further comprises 0.001 to 2 wt.% of at least one first metal selected from the group consisting of palladium, iridium and ruthenium.

5 10. The platinum alloy of any one of claims 1 to 9, wherein said alloy further comprises a 0.001 to 2 wt.% of at least one second metal selected from the group consisting of indium and gallium.

11. The platinum alloy of any one of claims 1, 3, 4 and 7 to 10, consisting
10 essentially of:

57.5 to 59.9 wt.% of platinum,
3.5 to 4.5 wt.% of cobalt, and
35.6 to 39 wt.% of copper,

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wherein 0.001 to 2 wt.% of copper may be substituted by at least one of said first metals and 0.001 to 2 wt.% of copper may be substituted by at least one of said second metals.

20 12. The platinum alloy of any one of claims 1 to 11, wherein the tensile strength of said alloy is in the range of 450 to 800 N/mm².

13. The platinum alloy of any one of claims 1 to 12, wherein the Vickers hardness of said alloy, measured at soft state, is in the range of 130 to 210 HV10.

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14. The platinum alloy of any one of claims 1 to 13, wherein the elongation at break of said alloy is at least 20 %.

15. The platinum alloy of any one of claims 1 to 14, wherein the color
30 tone of said alloy corresponds essentially to the platinum white color tone of a PtCu950 alloy.

16. A method of preparing an alloy according to any one of claims 1 to 15, which comprises (a) blending the components of the alloy; and (b) melting the alloy.

5 17. A platinum-colored material for ornamental purposes comprising a platinum alloy according to any one of claims 1 to 15.

18. An ornamental article comprising the platinum alloy of any one of claims 1 to 15.

10 19. The ornamental article of claim 18, wherein said ornamental article is a ring, a necklace, an earring, a watch band, a watch body or other jewelry.

20. A method of fabricating the ornamental article of claim 18 or 19,
15 which comprises forming the ornamental article from an alloy according to any one of claims 1 to 15.

21. The method of claim 20, wherein the alloy is casted into the shape of the ornamental article.

20 22. The use of a platinum alloy according to any one of claims 1 to 15 for the manufacture of an ornamental article such as a ring, a necklace, an earring, a watch band, a watch body or other jewelry.

25 23. A platinum alloy consisting essentially of 55 to 63 wt.% or 70 to 79.5 wt.% of platinum and one or more non-precious elements.

24. A platinum alloy consisting essentially of about 58.5 wt.% platinum and one or more non-precious elements.

30 25. A platinum alloy consisting essentially of about 75.0 wt.% platinum and one or more non-precious elements.

26. A jewelry product containing a platinum alloy consisting essentially of platinum in an amount in the range of 55 to 63 wt.% or 70 to 79.5 wt.%, and at least one non-precious element.